UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/912,211	07/24/2001	Michael J. Chaloner	10004955-1	6430

7590 02/23/2006

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collin, CO 80527-2400

EXAMINER	
BROWN, VERNAL U	

ART UNIT	PAPER NUMBER
2635	

DATE MAILED: 02/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/912,211
Filing Date: July 24, 2001
Appellant(s): CHALONER ET AL.

Michael A. Papalas
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 11/17/05 appealing from the Office action mailed 06/30/05.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5963134	Bowers et al.	10-1999
6,600,418	Francis et al.	7-2003
6,204,764	Maloney	3-2001

6,104,311	Lastinger	8-2000
5,581,257	Greene et al.	12-1996
5,995,019	Chieu et al.	11-1999

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 23, 24, 26-29, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bowers et al. U.S Patent 5963134 in view of Francis et al. U.S Patent 6600418 and further in view of Maloney US Patent 6204764.

Regarding claims 23 and 29, Bowers et al. teaches a container (32) comprising: object presence detection equipment (100) internal to said container (figure 6), said equipment comprising at least one transmitter (102) of transmitted signal energy and at least one receiver (104) of received signal energy (figure 3); a set of objects (22) for object presence detection internal to said container (col. 12 lines 62-67). Bowers et al. also teaches a container wall substantially surrounding the objects presence detection equipment (figure 6) and an object of the set of objects is operable to modify the transmitted signal energy of a selected frequency to generate the received signal energy of the selected frequency by resonating at the resonant frequency of the tag (col. 8 lines 36-43, col. 8 lines 54-60). Bowers et al. is silent on teaching a linear arrangement of the items in the container (32) but teaches use of a linear arrangement of items 22 contained in a library (figure 9) which represent a standard arrangement of items in a storage area. Bowers et al. is however silent on teaching shielding the interior of the container from extraneous external signals and a plurality of receivers. Francis et al. in an art related object

tracking system teaches the use of electromagnetic shielding to prevent reading of the extraneous source (col. 9 lines 49-65) and is also silent on teaching a plurality of receivers. Maloney in an art related tracking system teaches the tracking of items added to or remove from a container (col. 9 lines 63-67). Maloney teaches a plurality of receptacle for holding items within the container and each of the receptacle within the container is associated with a receiver (63) and further providing a plurality of receivers within the container (col. 8 lines 5-20) for detecting the removal or placement of article from the container.

It would have been obvious to one of ordinary skill in the art to shield the interior of the container from extraneous external signals and to have a plurality of receivers in Bowers et al. as evidenced by Francis et al. in view of Maloney because Bowers et al. suggests interrogating objects in a container and Francis et al. teaches the use of electromagnetic shielding to prevent reading of the by extraneous source and further limit the interference from other electromagnetic sources. Maloney teaches providing a plurality of receivers within the container for detecting the removal or placement of article from the container.

Regarding claim 24, Bowers et al. teaches the set of objects comprises a tape cartridge (col. 6 lines 45-49).

Regarding claims 26, Bowers et al. teaches arranging objects in a linear array and plurality of arrays (figure 9).

Regarding claim 27, Bowers et al. teaches an enclosed area 10 having plurality of arrays of objects (20, 22) as shown in figure 1 and the interrogator (figure 3) having associated transmitters (102), receivers (104), analyzing circuitry (108) and processing equipment (26).

Regarding claim 28, Bowers et al. teaches the transmitted and said received signal energy is radio frequency (col. 8 lines 42-43).

Regarding claim 32, Bowers et al. teaches the transmitter and the receiver are combined into one transceiver (figure 3).

Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bowers et al. U.S Patent 5963134 in view of Francis et al. U.S Patent 6600418 in view of Maloney US Patent 6204764 and further in view of Lastinger U.S Patent 6104311.

Regarding claim 30, Bowers et al. in view of Francis et al. in view of Maloney teaches the tag having a resonant circuit (col. 8 lines 40-42) but is silent in teaching resonating is enhanced by variable resonant material by adjusting the length of the resonating material. Lastinger in an art related tag identification system teaches changing the resonating properties by adjusting the length of the resonating material (col. 8 lines 16-18).

It would have been obvious to one of ordinary skill in the art to enhanced the resonating capability of the tag by adjusting the length of the resonating material in Bowers et al. in view of Francis et al. in view of Maloney as evidenced by Lastinger because Bowers et al. in view of Francis et al. in view of Maloney suggests the tag having a resonant circuit and Lastinger teaches changing the resonating properties by adjusting the length of the resonating material in order to change the resonant frequency.

Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bowers et al. U.S Patent 5963134 in view of Francis et al. U.S Patent 6600418 in view of Maloney US Patent 6204764 and further in view of Greene et al. U.S Patent 5581257.

Regarding claims 31 and 49, Bowers et al. in view of Francis et al. in view of Maloney teaches the tag resonating at a resonant frequency (col. 8 lines 40-42) but is silent in teaching the objects resonate at the same frequency. Greene et al. in an art related radio frequency identification system teaches radio frequency tags having the same resonant frequency (col. 6 lines 27-29) in order to provide the same information.

It would have been obvious to one of ordinary skill in the art for the objects to resonate at the same frequency in Bowers et al. in view of Francis et al. in view of Maloney as evidenced by Greene et al. because Bowers et al. in view of Francis et al. in view of Maloney suggests the tag resonating at a resonant frequency and adjusting controlling the resonant frequency and Greene et al. teaches radio frequency identification system teaches radio frequency tags having the same resonant frequency in order to provide the same information.

Claims 33-37, 42, 44-47, and 50-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bowers et al. U.S Patent 5963134 in view of Francis et al. U.S Patent 6600418.

Regarding claim 33, Bowers et al. teaches a method for identifying a subset of objects within a set of objects in a container (col. 12 lines 50-65), said method comprising: transmitting a signal of a selected frequency within said container (col. 12 lines 63-65); modifying said transmitted signal at a selected frequency by at least one object of said set of objects by resonating at a frequency (col. 8 lines 36-43). Bowers et al. also teaches receiving said modified signal within the container; analyzing and processing said received signal (col. 12 line 62-col. 13 line 12) but is however silent on teaching shielding the interior of said container from extraneous

external signals. Francis et al. in an art related object tracking system teaches the use of electromagnetic shielding to prevent reading of the by extraneous source (col. 9 lines 49-65).

It would have been obvious to one of ordinary skill in the art to shield the interior of the container from extraneous external signals in Bowers et al. as evidenced by Francis et al. because Bowers et al. suggests interrogating objects in a container and Francis et al. teaches the use of electromagnetic shielding to prevent reading of the by extraneous source and further limit the interference from other electromagnetic sources.

Regarding claims 34, Bowers et al. teaches the set of objects comprises a tape cartridge (col. 6 lines 45-49).

Regarding claim 35, Bowers et al. teaches arranging objects in a linear array and plurality of arrays (figure 9).

Regarding claims 36 and 46 Bowers et al. teaches the transmitted and said received signal energy is radio frequency (col. 8 lines 42-43).

Regarding claims 37 and 47, Bowers teaches means for modifying comprises resonating at the selected frequency (col. 8 lines 36-43).

Regarding claim 42, Bowers et al. teaches a tape storage container (32) comprising: object presence detection equipment (100) internal to said container, said equipment comprising at least one transmitter (102) of transmitted signal energy and at least one receiver (104) of received signal energy (figure 3); a plurality of tape cartridges (22) (col. 6 lines 66-col. 7 line 5) for object presence detection internal to said container (col. 7 lines 32-40), such that a tape cartridge of said plurality of tape cartridges is operable to modify said transmitted signal energy of a selected frequency to generate said received signal energy of said selected frequency (col. 8

lines 35-43). Bowers et al. teaches arranging objects in a linear array and plurality of arrays (figure 9). Bowers also teaches the outer body substantially surrounding said object presence detection equipment and said plurality of tape cartridges (figure 6) but is silent on teaching metallic outer body operable to shield said equipment and said tape cartridges from extraneous external signals. Francis et al. in an art related object tracking system teaches the use of electromagnetic shielding to prevent reading of the by extraneous source (col. 9 lines 49-65).

It would have been obvious to one of ordinary skill in the art to shield the interior of the container from extraneous external signals in Bowers et al. as evidenced by Francis et al. because Bowers et al. suggests interrogating objects in a container and Francis et al. teaches the use of electromagnetic shielding (metallic) to prevent reading of the by extraneous source and further limit the interference from other electromagnetic sources.

Regarding claim 44, Bowers et al. teaches arranging objects in a linear array and plurality of arrays (figure 9).

Regarding claim 45, Bowers et al. teaches an enclosed area 10 having plurality of arrays of objects (20, 22) as shown in figure 1 and the interrogator (figure 3) having associated transmitters (102), receivers (104), analyzing circuitry (108) and processing equipment (26).

Regarding claim 50, Bowers et al. teaches the transmitter and the receiver are combined into one transceiver (figure 3).

Regarding claim 51, Bowers et al. teaches producing a report based on the analysis of the content of the container (col. 14 lines 4-10) and the report shows the number of members in a subset as shown in figure 7, the subset is based on the location of the items.

Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bowers et al. U.S Patent 5963134 in view of Francis et al. U.S Patent 6600418 and further in view of Lastinger U.S Patent 6104311.

Regarding claim 48, Bowers et al. in view of Francis et al. teaches the tag having a resonant circuit (col. 8 lines 40-42) but is silent in teaching resonating is enhanced by variable resonant material by adjusting the length of the resonating material. Lastinger in an art related tag identification system teaches changing the resonating properties by adjusting the length of the resonating material (col. 8 lines 16-18).

It would have been obvious to one of ordinary skill in the art to enhanced the resonating capability of the tag by adjusting the length of the resonating material in Bowers et al. in view of Francis et al. as evidenced by Lastinger because Bowers et al. in view of Francis et al. in view of Maloney suggests the tag having a resonant circuit and Lastinger teaches changing the resonating properties by adjusting the length of the resonating material in order to change the resonant frequency.

Claim 49 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bowers et al. U.S Patent 5963134 in view of Francis et al. U.S Patent 6600418 and further in view of Greene et al. U.S Patent 5581257.

Regarding claim 49, Bowers et al. in view of Francis et al. teaches the tag resonating at a resonant frequency (col. 8 lines 40-42) but is silent in teaching the objects resonate at the same frequency. Greene et al. in an art related radio frequency identification system teaches radio

frequency tags having the same resonant frequency (col. 6 lines 27-29) in order to provide the same information.

It would have been obvious to one of ordinary skill in the art for the objects to resonate at the same frequency in Bowers et al. in view of Francis et al. as evidenced by Greene et al. because Bowers et al. in view of Francis et al. in view of Maloney suggests the tag resonating at a resonant frequency and adjusting controlling the resonant frequency and Greene et al. teaches radio frequency identification system teaches radio frequency tags having the same resonant frequency in order to provide the same information.

Claim 52 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bowers et al. U.S Patent 5963134 in view of Francis et al. U.S Patent 6600418 in view of Maloney US Patent 6204764 and further in view of Chieu et al. U.S Patent 5995019.

Regarding claim 52, Bowers et al. in view of Francis et al. teaches grouping the objects in subset based on the item appropriate location but is silent on teaching each subset is responsive to a different selected frequency. Chieu et al. in an art related method for communicating with RF transponders teaches grouping of tags based on the attribute of the signal sent from the base station to the tag. (col.12 lines 3-10) and one skilled in the art recognizes that frequency of a signal is considered its attribute.

It would have been obvious to one of ordinary skill in the art for each subset to be responsive to a different selected frequency in Bowers et al. in view of Francis et al. as evidenced by Chieu et al. because Bowers et al. in view of Francis et al. in view of suggests grouping the objects in subset based on the item appropriate location and Chieu et al. teaches

grouping of tags based on the attribute of the signal sent from the base station to the tag in order to isolate a group of tag and one skilled in the art recognizes that frequency of a signal is considered its attribute.

(10) Response to Argument

Appellant argues on page 7 that the office action fails to show the desirability of the combination of the reference of Bowers and Francis with Maloney. It is the examiner position that the motivation for combining the references of Bowers and Francis with Maloney is provided by the reference of Maloney. The reference of Maloney teaches an alternative container (figure 7) to the container as described by Bowers in which each of the articles in the container is individually monitored and therefore requires a plurality of receivers.

Appellant argues on page 7 that the reference of Bowers fail to teach the objects in the container disposed in a configuration selected from a linear array, two dimensional array, and a three-dimensional array. It is the examiner position that the reference of Bowers et al. teaches a linear arrangement of books in the container (library) as shown in figure 9.

Appellant argues on pages 8 and 12 that the reference does not teach an object that is operable to modify the transmitted signal energy of a selected frequency to generate the received signal at the selected frequency. It is the examiner opinion that each item in the container is an object of set of objects provided by all the items in the container and the transmitted signal energy is modify by resonating at the resonating frequency of the tag (col. 8 lines 54-60). The appellant's statement that the tag return a signal with a different frequency than the frequency

received is not disclosed by Bowers. The frequency shifting of the return signal in Bowers (col. 8 lines 54-60) reads on the argued limitation.

Appellants argues on page 9 that the reference of Maloney fail to teach how many RF sensors associated with a receptacle. It is the examiner position that the reference of Maloney teaches a container (storage unit, as shown in figure 7) having a number of receivers provided by sensors 63 (col. 8 lines 5-20) further implying a container having a plurality of fixed receivers. The argued limitation of the number of sensors associated with a receptacle is not a claimed limitation. The claims are not as narrowed as argued.

Appellant argues on page 10 that the reference of Green does not teach the subset of objects within the set of objects are interchangeable and resonant at the same frequency as claimed in claim 31. It is the examiner position that the reference of Green teaches tags having the same resonant frequency (col. 6 lines 27-29). The tags are therefore interchangeable because they resonate at the same frequency.

Appellant argues on page 10 that the reference of Bowers et al. does not teach identifying subsets and does not teach a subset comprises a plurality of objects responsive to a selected frequency as claimed in claims 33-38. It is the examiner's position that Bowers et al. teaches that each of the objects has a radio frequency tag attach to it (col. 2 lines 25-28). The object to which the RF tag is attached includes books, video tapes, CD's, and audio tapes (col. 6 lines 26-49) and each tag respond to a particular frequency (col. col. 8 lines 36-43). Each of these types of objects (e.g. tape is a subset) forms a subset of the entire group of objects.

Appellant argues on pages 11 and 12 that the reference of Francis does not teach shielding the interior of the container from external extraneous signal. It is the examiner's

position that the reference of Francis teaches the use of RF shield so that only the RF tag position on the same side of the plane of the shield along with the interrogator will receive the interrogation signal (col. 5 lines 17-22, col. 9 lines 49-65). The placement of the RF shield as disclosed by Francis et al. and as claimed by the Appellant is therefore not pattenable distinct because the RF shield in both cases are used to create a RF boundary for preventing extraneous or external electromagnetic signal from crossing the RF boundary.

Appellant argues on page 11 that the reference of Bowers et al. does not teach the object presence detection equipment internal to the container. It is the examiner position that the object detection equipment provided by the interrogator (100) is internal to the drop box (figure 6).

Appellant argues on page 13 that the reference of Bowers et al fails to teach the analysis determines the number of members of the subset present in the container. It is the examiner's opinion that the analysis of the listing of container's content report 116 as shown in figure 7 provides the information of the number of items present in a subset.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Vernal Brown

February 8, 2006

JEFFERY HOFSASS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

Conferees:

Michael Horabik

February 8, 2006

MICHAEL HORABIK
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

BRIAN ZIMMERMAN
PRIMARY EXAMINER

Brian Zimmerman

February 8, 2006